

What is claim d is:

1. A semiconductor device using a LOCOS method for element isolation comprising: a silicon layer in an element isolation region having an inclined part in a sectional shape;

a metal oxide film for generating a fixed electric charge, formed on the silicon layer in the element isolation region having the inclined part; and

a field oxide film formed on the metal oxide layer.

2. A semiconductor device according to claim 1 wherein the silicon layer is a silicon layer of an SOI structure formed on an insulating oxide layer.

3. A semiconductor device according to claim 1 wherein the element is an N-channel MOSFET and the fixed electric charge is a negative fixed electric charge.

4. A semiconductor device according to claim 3 wherein the metal oxide film is aluminum oxide.

5. A method of manufacturing a semiconductor device using a LOCOS method for element isolation comprising the steps of: forming a pad oxide film and a nitride film sequentially on a silicon layer in an element region;

forming a metal oxide film for generating a fixed electric charge on the nitride film and on the silicon layer in an element isolation region;

forming a field oxide film in the element isolation region by implementing an oxidation treatment; and

removing the metal oxide film on the nitride film, the nitride film and the pad oxide film.

6. A method of manufacturing a semiconductor device according to claim 5 wherein the silicon layer is a silicon layer of an SOI structure formed on an insulating oxide layer.

7. A method of manufacturing a semiconductor device

according to claim 5 wherein the element is an N-channel MOSFET and the fixed electric charge is a negative fixed electric charge.

8. A method of manufacturing a semiconductor device according to claim 7 wherein the metal oxide film is aluminum oxide.

9. A method of manufacturing a semiconductor device using a LOCOS method for element isolation comprising the steps of: forming a pad oxide film and a nitride film sequentially on a silicon layer in an element region;

forming a field oxide film in an element isolation region by implementing an oxidation treatment;

implanting an impurity into the field oxide film to generate a fixed electric charge on the field oxide film; and

removing the nitride film and the pad oxide film.

10. A method of manufacturing a semiconductor device according to claim 9 wherein the silicon layer is a silicon layer of an SOI structure formed on an insulating oxide layer.

11. A method of manufacturing a semiconductor device according to claim 9 wherein the impurity is implanted by a diagonal ion implantation.

12. A method of manufacturing a semiconductor device according to claim 9 wherein the element is an N-channel MOSFET and the fixed electric charge is a negative fixed electric charge.

13. A method of manufacturing a semiconductor device according to claim 12 wherein the impurity is a fluorine ion.